

CHAPTER 69. EVALUATE PART 121/135 OUTSOURCE MAINTENANCE ARRANGEMENT

SECTION 1. BACKGROUND

1. PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

A. Maintenance: 3304, 3339, 3383

B. Avionics: 5339, 5383

3. OBJECTIVE. This chapter provides guidance for ensuring that maintenance providers used by air carriers to outsource maintenance are servicing and maintaining the aircraft and appliances IAW the air carrier's policies and procedures and current federal aviation regulations.

5. GENERAL.

A. Outsource Organization. When an air carrier uses a maintenance provider to provide all or part of the maintenance on its aircraft or its component parts, that maintenance provider's organization becomes, in effect, an extension of the air carrier's maintenance organization. The use of outsource maintenance providers to complete aircraft maintenance is becoming as fundamental to an air carrier's maintenance programs as its own internal maintenance facilities. Although air carriers have outsourced portions of their maintenance work for years, this practice has recently become more pronounced. As air carriers take aggressive steps to reduce operating costs, it is clear the trend toward increased use of outsource maintenance facilities is likely to continue.

(1) Any organization or person with whom the air carrier has made an arrangement and/or contract (informal/oral or formal/written) for the performance of any maintenance, preventive maintenance, or alterations involving their aircraft and/or components thereof is considered an outsource maintenance provider. Arrangements with persons or organizations that supply parts and/or components, other than new, on a lease, exchange, or sale basis are also considered.

(2) All parts and/or components used by an air carrier on its authorized aircraft must be maintained under the air carrier's continuous airworthiness maintenance program (CAMP). Leases, exchanges, or

other arrangements that do not allow the air carrier to be in control of the maintenance of the leased/exchanged part/component while it is in a maintenance status are contrary to the regulations.

B. Maintenance Contracts.

(1) When possible, air carriers should have a written contract with anyone performing maintenance work for them on a continuing basis. This will help ensure that the air carriers' responsibilities are addressed. General clauses of a contract could address:

- The maintenance provider ensuring compliance with all applicable laws and regulations, or particular sections of the regulations
- The maintenance provider allowing an audit of the facilities, equipment, personnel, and records pertaining to the services provided to the air carrier, at any reasonable time

(2) The clauses would allow the air carrier to ensure compliance with its program requirements and to show the results of such compliance to the Federal Aviation Administration (FAA).

(3) In the case of major operations, such as engine, propeller, or airframe overhaul, the contract should include a specification for the work. Air carriers should include or reference that specification in their manual system. If a carrier's program is administered in such a way as to require specific assurances in a contract, the carrier must be ready to show that the contract covers the regulatory requirement.

C. Substantial Maintenance. On June 18, 1996, Administrator Hinson announced a program to improve the FAA Flight Standards' inspection policies. The Administrator outlined improvements to the air carrier inspection policy regarding substantial maintenance performed by persons other than the air carrier.

NOTE: The provisions of substantial maintenance provider guidance and the subsequent issuance of operations specifications (OpSpec) D091 are only applicable to Title 14 of the Code of Federal Regulations (14 CFR) part 121 operators.

(1) These part 121 air carrier inspection policy improvements are centered on the following:

- Pre-qualification of new maintenance providers before they can be authorized for use
- The evaluation of current maintenance providers being used by air carriers
- The listing, on OpSpecs, of all maintenance providers who perform substantial maintenance

(2) These inspection policy improvements are a result of a recent perceived trend among some air carriers to neglect their responsibility to effectively control and oversee maintenance performed by maintenance providers. The air carrier's responsibility for the airworthiness of its aircraft, along with the associated requirement to be responsible for the performance of all elements of its CAMP, is restated and emphasized.

(3) Within the intent of this guidance and OpSpecs D091, substantial maintenance is defined as any activity involving a "C" check or greater maintenance visit; any engine maintenance requiring case separation or tear down; and/or major alterations or major repairs performed on airframes, engines, or propellers. Examples of substantial maintenance include:

(a) Accomplishment of scheduled heavy maintenance inspections (e.g., "C" checks, "D" checks, or equivalent), which may include the accomplishment of Airworthiness Directives, Airworthiness Limitation Items, and Corrosion Prevention and Control Program tasks applicable to aircraft primary structure.

(b) Accomplishment of off-aircraft maintenance or alteration of engines that involves the separation of modules or propellers, Full Authority Digital Engine Controls, major engine repairs, and repairs to life-limited parts such as compressors, turbine disks, and engine cases, but excluding parts such as blades, vanes, and burner cans.

(c) Accomplishment of off-aircraft maintenance or alteration of required emergency equipment items such as slides and rafts, but excluding items such as medical kits, crash axes, life vests, and escape ropes.

(4) Therefore, any maintenance organization that an air carrier arranges to provide any of the above type services must be classified as a substantial maintenance provider. This section also applies to maintenance providers that maintain leased/exchanged parts/components which will be used by the carrier on its authorized aircraft.

D. Examples of Maintenance Outsourcing. The following paragraphs describe general examples of outsourcing maintenance.

(1) *Operator Arranges for the Performance of Maintenance.* This example includes arrangements with repair stations, certificated mechanics, or other certificated operators to repair, inspect, or overhaul engines, structures, airframes, and/or appliances that are not considered to be substantial maintenance as defined in OpSpec D091. These arrangements can be continuous or on an "on-call" basis. Air carriers commonly refer to these arrangements as contract maintenance, on-call maintenance, or subcontract mechanics. Work is accomplished in accordance with (IAW) the air carrier's approved program.

(2) *Operator Contracts for an All-Encompassing Maintenance Program.* In this category, all maintenance is performed IAW the contractor's programs, methods, procedures, and standards. The operator's equipment is considered part of the contractor's fleet for purposes of maintenance program content and maintenance intervals, including reliability control. The issuance of OpSpecs will authorize this type of contractual arrangement (see FAA Order 8300.10, Airworthiness Inspector's Handbook, vol. 2, ch. 84, FAR Part 121/135 OpSpecs).

(3) *Operator Contracts Specific Functions Using the Contractor's Approved Maintenance Program.* This example is similar to that in paragraph 5D(2) except that the contract covers specific functions rather than an all-encompassing program. For example, the contract may cover heavy maintenance on engines under the contractor's approved maintenance program. The issuance of OpSpecs will authorize this type of contractual arrangement (see vol. 2, ch. 84).

E. Responsibilities of the Air Carrier.

(1) Throughout the process of evaluating the outsourcing of maintenance, it is important to remember that the air carrier is primarily responsible for the airworthiness of its aircraft, including airframes, aircraft engines, propellers, appliances, and parts thereof (see part 121, § 121.363(a)(1) and 14 CFR part 135, § 135.413(a)). Compliance with this general requirement is ensured by each air carrier having a program covering inspections and all other maintenance, preventive maintenance, and alterations performed by it, or by other persons on its behalf, that requires that such work be performed IAW the certificate holder's manual (see part 121, § 121.367(a) and § 135.413(b)(2)).

(2) The operator must ensure the organization or person has the capabilities and facilities to perform the intended work.

(3) The operator may adopt the publications of an outsourced organization or person in part or in total as methods, techniques, and standards. The operator's manual must describe the applicability and authority of the affected publication.

(4) As part of its continuous analysis and surveillance program, the air carrier should establish a schedule for accomplishing continuing audits or

inspections that are designed to determine the maintenance provider's level of compliance with its manual and its CAMP. The frequency of these audits or inspections will be dictated by a number of variables, such as the air carrier's level of confidence in the maintenance provider, the complexity and quantity of the work, the quality of the work produced, and the quality of the records and certifications produced. Because of these variables, air carriers will have audit schedules that differ from one another. Each air carrier should have an audit schedule based on its own unique set of circumstances and needs.

(5) Air carriers will not normally perform audits of organizations that certificated repair facilities contract with. They must, however, identify and document the means used by the repair facility to ensure the organizations it contracts with have the organizational structure, competent and trained personnel, and adequate facilities and equipment to perform the intended function(s). The repair stations should have an audit and surveillance system that will determine that work done is accomplished properly.

F. OpSpecs. Programs outlined in § 121.367 and part 135, § 135.425 and authorized by OpSpecs become an integral part of the operator's CAMP. Vol. 2, ch. 84 contains the guidance and instructions for preparing and issuing OpSpecs.

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SECTION 2. PROCEDURES

1. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites:

- Knowledge of the regulatory requirements of parts 121 and 135
- Successful completion of the Airworthiness Inspector Indoctrination course(s) or equivalent
- Previous experience with part 121 or 135 air carriers

B. Coordination. This task requires coordination with the principal maintenance inspector (PMI) and principal avionics inspector (PAI) and may also require coordination with the certificate-holding district office (CHDO) having responsibility for the organization with whom the air carrier has made maintenance arrangements.

3. REFERENCES, FORMS, AND JOB AIDS.

A. References (current editions):

- Title 14 CFR parts 43, 91, 119, 121, and 135
- Advisory Circular (AC) 120-16, Air Carrier Maintenance Programs
- AC 120-79, Developing and Implementing a Continuing Analysis and Surveillance System
- Operator/contractor/manufacturer's manuals
- ATOS Element: 1.3.7

B. Forms:

- FAA Form 8400-8, Operations Specifications

C. Job Aids:

- Automated OpSpecs checklists and worksheets
- JTAs: 3.3.51, 3.3.52

5. PROCEDURES.

A. Evaluate the Air Carrier's Maintenance Program Regarding Outsourcing Maintenance.

(1) Aviation safety inspectors (ASI) with surveillance responsibilities for air carriers should review the carrier's maintenance program to determine

whether the certificate holder's procedures adequately address all aspects of outsourcing maintenance.

(2) Under part 121, § 121.367 and part 135, § 135.425, the air carrier must have a system in place that ensures the maintenance provider will perform work IAW the carrier's manual and CAMP. That means the information necessary to ensure compliance with the program is made available to the maintenance provider and the maintenance provider follows the information provided. Further, the air carrier must be able to show that the maintenance provider has competent personnel and adequate equipment and facilities. By showing these requirements are covered, the carrier is able to ensure the aircraft are properly released to service in an airworthy condition under the carrier's specific maintenance program.

(3) The following specific areas must be included or referenced in the air carrier's program:

(a) *Adequate Organization.* Under §§ 121.365, 135.423, and 135.425, the air carrier must ensure that the person with whom it arranges to perform maintenance has an organization capable of handling the work. Further, if required inspection items (RII) will be maintained or altered by the maintenance provider, the inspection functions must be separated within the organization. If the carrier's maintenance program or procedures require specific compliance aspects, the carrier must be able to show that the maintenance provider is equally capable of following the manual and procedures.

(b) Manual Requirements.

i. Under § 121.369 and § 135.427, the air carrier must provide a manual covering the administration of its maintenance program. The manual must include specific methods for complying with the applicable sections of parts 121 and 135. If a maintenance provider must know these requirements, the air carrier must ensure that the information is provided.

ii. Sections 121.369 and 135.427 require an operator to list in its manual the persons with whom it contracts for maintenance and to include a description of the contracted work.

iii. The air carrier may choose to adopt the maintenance provider's maintenance manuals or portions thereof that are to be used for the performance

of maintenance. The adoption details must be stated in the operator's manual system.

(c) Required Inspection Personnel.

i. Under §§ 121.371 and 135.429, the air carrier must ensure its specified RIIs are known to the maintenance provider covering the work. The carrier must also ensure that the maintenance provider personnel are trained IAW its manual and the carrier's procedures.

ii. Each air carrier shall maintain, or determine that each person with whom it arranges to perform its required inspections maintains, a current listing of persons who have been trained, qualified, and authorized to conduct required inspections. The persons must be identified by name, occupational title, and the inspection that they are authorized to perform. The air carrier (or person with whom it arranges to perform its required inspections) shall give written information to each person so authorized, describing the extent of the person's responsibilities, authorities, and inspection limitations. The air carrier must provide this list for inspection upon FAA request.

(d) Continuing Analysis. Under §§ 121.373 and 135.431, the air carrier must continually survey its maintenance program and all persons acting under that program to ensure continuous compliance with the program and the regulations. The carrier must ensure corrective action is taken on any deficiencies or inadequacies found in its maintenance program. This generally requires the air carrier to perform audits of all its maintenance providers.

(e) Training Programs. Under §§ 121.375 and 135.433, the air carrier must ensure the maintenance provider's personnel are trained in a manner equivalent to the requirements of the carrier's manual. This may require the maintenance provider's personnel to attend specific courses or maintain specific levels of proficiency.

(f) Duty Time. Under § 121.377, the air carrier must ensure its maintenance providers follow the duty time requirements. If the air carrier's maintenance manual and procedures indicate the maintenance provider provides specific assurances, the contractor must provide those assurances.

(g) Certificate Requirements. Under §§ 121.378 and 135.435, the air carrier must ensure only certificated persons are directly in charge of maintenance and/or perform required inspections.

(h) Authority to Perform. Under §§ 121.379 and 135.437, the air carrier is authorized to perform, or arrange for the performance of, maintenance on its own aircraft as set forth in the maintenance program and manual(s). The center of the relationship between air carriers and maintenance providers is the procedures and assurances set forth in the carrier's manual. The inspector should continually ensure that the carrier is able to establish compliance with its own procedures, either through direct supervision, surveillance, and/or auditing, or through appropriate controls such as contractual relationships.

(i) Records. Under part 43, §§ 43.9 and 43.11; part 91, § 91.417; part 121, § 121.380; and part 135, § 135.439, aircraft owners and operators must maintain specific records. If the carrier's maintenance manual(s) and/or procedure(s) indicate that the responsibility of making regulatory records available is delegated to maintenance providers, the manual(s) and/or procedure(s) should clearly delineate the records required to be maintained, the length of time the records should be maintained, and the form and manner of maintaining such records.

(j) Other Areas of Consideration.

i. The source of major repair and major alteration data developed by or for the air carrier must be accomplished IAW the air carrier's manuals.

ii. The air carrier must ensure that all organizations with whom it arranges will adequately and promptly report to the air carrier per the requirements of §§ 121.703 and 121.705, or §§ 135.415 and 135.417.

iii. The air carrier must update the list required by §§ 121.369(a) and 135.427(a).

B. Evaluate the Written Maintenance Contract.

(1) ASIs with surveillance responsibilities for air carriers should review the carrier's contract (if applicable) with the maintenance provider to ensure that no contractual clauses will contradict the air carrier's manual policy and procedures and current regulations.

(2) If adherence to the carrier's maintenance manual(s) and procedure(s) make clear that regulatory requirements are guaranteed through the business transactions with maintenance providers, the contract should reflect that obligation. Therefore, the contract

may be used to show compliance with general as well as specific areas. For example:

(a) The description of work to be performed will dictate the depth of supervision, information exchange, and auditing needed to ensure compliance with the air carrier's maintenance and inspection program. The more extensive the work, the more training, information, and oversight the carrier will need.

(b) The need for information exchange will be dictated by the technical requirements of the work to be performed. The carrier should ensure information from the maintenance provider is obtained when needed for the carrier's reliability and/or continuing analysis and surveillance program.

(c) Because the maintenance provider is required to provide competent personnel and adequate facilities, the carrier may want to include a clause for the maintenance provider to notify it of changes in staffing, facilities, and ownership.

(d) Traceability of components and parts information may be included in the contract. This could include everything from new parts to the scrapping and/or returning of parts to the air carrier. It could also require parts exchanged being in the same configuration and complying with service bulletins and Airworthiness Directives.

C. Determine Qualification to Perform Substantial Maintenance for an Air Carrier.

NOTE: The provisions of substantial maintenance provider guidance and the subsequent issuance of OpSpecs D091 are only applicable to part 121 operators.

(1) Since September 1, 1996, all new substantial maintenance providers must be authorized and listed on OpSpecs prior to use. New substantial maintenance providers will not be authorized for use without the accomplishment of an onsite audit by the air carrier proposing the maintenance provider. The following items provide the standard for performance:

(a) Prior to using a maintenance provider for the first time, unless the air carrier can successfully demonstrate to the PMI other means of accurately determining the capability and adequacy of the proposed maintenance provider, the air carrier must conduct an onsite audit of the maintenance provider. The air carrier's onsite audit, or other means, must

demonstrate to the PMI that the maintenance provider has the following:

- i. Capability;
- ii. Organizational structure;
- iii. Competent and trained personnel;
- iv. Relevant and current technical and administrative material from the air carrier manual for the work;
- v. Adequate facilities and equipment to do the work arranged for IAW the air carrier's program; and
- vi. The ability to transfer and receive data and information necessary to support the continuing analysis and surveillance program, reliability program, or other programs required by the carrier's manual.

(b) Air carriers may substitute a current Coordinating Agencies for Supplier's Evaluation (CASE) audit report for the required onsite audit if it can be determined that the CASE audit addresses all elements above. The air carrier must perform an onsite audit of those elements of the above paragraph 5C(1)(a) that are not accomplished by the auditing organization.

(2) The air carrier must submit a copy of the audit report to the PMI for review in a checklist or a summary analysis form. That report should show how the air carrier made its determination that all of the above-listed items are adequately addressed.

(3) The air carrier must have a system in place that detects, identifies, and provides timely corrective action, on a continuing basis, for all deficiencies or deviations in those portions of the CAMP accomplished by the substantial maintenance provider, including maintenance recordkeeping.

(4) The air carrier must have a system in place that tracks and evaluates, on a continuing basis, the standards of performance (quality) of the substantial maintenance work accomplished by the individual maintenance provider.

(5) The system shall also include provisions for timely corrective action if the quality of work becomes unsatisfactory and deficiencies are noted.

(6) An air carrier that elects to obtain the services of a substantial maintenance provider on an unscheduled and/or short notice basis must include specific procedures for doing so in its manual.

However, the circumstance of an unscheduled, short notice requirement for substantial maintenance does not void the requirements of §§ 121.365, 121.367, and 121.378, or any other applicable regulation.

7. TASK OUTCOMES.

A. File PTRS Data Sheet. Open PTRS Data Sheets for each outsource maintenance facility inspection performed by the CHDO team. Comments concerning the method of inspection used by the air carrier or operator, and any other possible findings identified during the inspection process, should be recorded in section IV of the PTRS Data Sheet.

B. Complete the Task. Completion of this task will result in one of the following:

(1) If the operator's manual and outsource agency are determined to be satisfactory, accept the manual and approve the OpSpecs per the guidance in vol. 2, ch. 84.

(2) If the operator's manual is determined to be unsatisfactory, return the manual for corrections.

(3) If the outsource provider is determined to be unsatisfactory, deny the operator the use of that provider.

C. Update the Vital Information Subsystem (VIS) and/or OpSpecs. If provider is accepted:

(1) Open the operator's VIS record and update the information on the VIS, page 4 of the air operator record in the field "Airworthiness Agreement." The PMI should determine whether or not revisions to OpSpecs for contracted maintenance are required. The VIS record field(s) should reflect the most appropriate choice. The two pertinent option codes for maintenance are:

A: Contracts out most/all maintenance

P: Contracts out a substantial maintenance function

(2) For part 121 operators, OpSpec D091 must be updated whenever substantial maintenance providers are added or deleted. OpSpecs paragraph A004a or A004b, as appropriate, must also be amended if necessary.

D. Document the Task. File all supporting paperwork in the operator/applicant's office file.

9. FUTURE ACTIVITIES. Normal surveillance.